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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Michael Joseph Morrison

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10/28/2011

AMSTER, ROTHSTEIN & EBENSTEIN LLP
90 PARK AVENUE
NEW YORK, NY 10016

EXAMINER

FRANCIS, FAYE

ART UNIT

PAPER NUMBER

3725

MAIL DATE

DELIVERY MODE

10/28/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/586,194	Applicant(s) MORRISON ET AL.	
	Examiner FAYE FRANCIS	Art Unit 3725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-56 is/are pending in the application.
- 5a) Of the above claim(s) 42 and 44-56 is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1-41 and 43 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☒ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 14 July 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

1. Claims 42 and 44-56 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 9/1/11.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the outlets in claim 17, inlet closure in claim 19, outlet closure in claim 20 and limitations of claims 23-25 and 28-31 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

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Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means", "said," and "**comprising**" should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The abstract of the disclosure is objected to because of the use of legal phraseology [note the word "**comprising**" in line 9. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1- 41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-2 are indefinite since all that the applicant considers to be encompassed by the phrases “gross cross sectional shape” and “gross shape” respectively cannot be determined.

Claim 16 contains the trademark/trade name “Teflon”. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 1 12, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade names are used to identify/describe the non-stick material and, accordingly, the identification/description is indefinite.

With respect to claim 24: the phrase “at least one depression” is vague since in claim 23 which claim 24 depends on no depression may be encompassed therein (note the phrase “and/or”). Note also claims 25-26 in similar regard.

Claims 30-31 are indefinite because it is not clear what the word “nodule” is intended to encompass.

With respect to claim 32: the claim language is confusing since it is not clear whether “vertical axis” in line 4 is the same vertical axis as in line 7 of claim 1 from which claim 32 depends or is an additional one.

Claims 33 and 41 are drafted in such a way that it appears to be entirely functional. The claims are vague and indefinite because, the additional structure sought to be added to claim 1 or encompassed in these dependent claims cannot be determined.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-10, 21-26, 28-35, 39, 41 and 43 are rejected as best understood under 35 U.S.C. 102(b) as being anticipated by Smith (2,656,988).

Smith discloses in Fig. 1, a feed material processing apparatus comprising: a chamber 6, at least one inlet 27 in flow communication to an upper region of the chamber, a single rotor 36 is inherently rotatable at speeds of between about 200 km/hr and about 1200 km/hr (since the device includes a variable speed control motor) about a substantially vertical axis by a rotation drive, wherein at least one vertically oriented feature 44 located laterally on the rotor promotes a circulatory flow of feed material within the chamber and at least one outlet 80 in flow communication from a lower region of the chamber. Additionally, Smith discloses the diameter of the chamber narrows towards a base thereof resulting from angled side walls of the chamber and wherein the sides of the rotor are angled.

9. Claims 1-2, 5, 8, 21-23, 27, 29-35, 39, 41 and 43 are rejected as best understood under 35 U.S.C. 102(b) as being anticipated by Burkett (3,987,970).

Burkett discloses in Fig. 1, a feed material processing apparatus comprising: a chamber 10, at least one inlet 18 in flow communication to an upper region of the chamber, a single rotor 30 is inherently rotatable at speeds of between about 200 km/hr and about 1200 km/hr (since the device includes a variable speed control motor) about a substantially vertical axis by a rotation drive, wherein at least one vertically oriented feature 45 located laterally on the rotor promotes a circulatory flow of feed material within the chamber and at least one outlet 69 in flow communication from a lower region of the chamber. Additionally, Smith discloses at least one outlet comprises a closure and/or a variable aperture (control means 70).

10. Claims 1-2, 5, 8, 10, 21-23, 27, 29-34, 36, 39, 41 and 43 are rejected as best understood under 35 U.S.C. 102(b) as being anticipated by Sheahan (5,732,894).

Sheahan discloses in Fig. 1, a feed material processing apparatus comprising: a chamber 14, at least one inlet (18 and 20) in flow communication to an upper region of the chamber, a single rotor 32 is inherently rotatable at speeds of between about 200 km/hr and about 1200 km/hr (since the device includes a variable speed control motor) about a substantially vertical axis by a rotation drive, wherein at least one vertically oriented feature 46 located laterally on the rotor promotes a circulatory flow of feed material within the chamber and at least one outlet 28 in flow communication from a lower region of the chamber. Also, Sheahan discloses wherein the drive shaft enters the chamber from below.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 1-10, 21-26, 28-35, 39, 41 and 43 are rejected as best understood under 35 U.S.C. 103(a) as being unpatentable over Hadsel (2,046,169) in view of either Smith or Burkett.

Hadsel discloses in Fig. 1, a feed material processing apparatus comprising: a chamber 3, at least one inlet in flow communication to an upper region of the chamber, a single rotor 24 wherein at least one vertically oriented feature 25 located laterally on the rotor promotes a circulatory flow of feed material within the chamber and at least one outlet 32 in flow communication from a lower region of the chamber (col 3 line 54 to col 4 line 17). Additionally, Hadsel discloses the diameter of the chamber

narrows towards a base thereof resulting from angled side walls of the chamber and wherein the sides of the rotor are angled.

Hadsel does not disclose a variable speed control motor.

Either Smith or Burkett teaches that it is conventional to provide a processing device with a variable speed control motor to accommodate different material being processed. It would have been obvious to one of ordinary skill in the art at the time the invention was made, in view of either Smith or Burkett to provide the device of Hadsel with the variable speed control motor for maximizing efficiency and energy use in the processing system.

With respect to claims 11-16, 18 and 37-38, the limitations of these claims are either well known in the art or would have been well within the scope of one skilled in the art once the basic apparatus was known as in Hadsel . For example, providing the processing mechanism in a crusher with wear resistance material and recirculation of material between inlet and outlet are well known in the art and of no patentable merit.

14. Claims 11-16, 18 and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith.

With respect to claims 11-16, 18 and 37-38, the limitations of these claims are either well known in the art or would have been well within the scope of one skilled in the art once the basic apparatus was known as in Smith. For example, providing the processing mechanism in a crusher with wear resistance material and recirculation of material between inlet and outlet are well known in the art and of no patentable merit.

15. Claims 11-16, 18 and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burkett.

With respect to claims 11-16, 18 and 37-38, the limitations of these claims are either well known in the art or would have been well within the scope of one skilled in the art once the basic apparatus was known as in Burkett. For example, providing the processing mechanism in a crusher with wear resistance material and recirculation of material between inlet and outlet are well known in the art and of no patentable merit.

16. Claims 11-16, 18 and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheahan.

With respect to claims 11-16, 18 and 37-38, the limitations of these claims are either well known in the art or would have been well within the scope of one skilled in the art once the basic apparatus was known as in Sheahan. For example, providing the processing mechanism in a crusher with wear resistance material and recirculation of material between inlet and outlet are well known in the art and of no patentable merit.

17. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Willmot (7,207,504).

Smith discloses most of the elements of this claim but for outlets at varying vertical positions of the chamber.

Willmot is cited to show desirability, in the relevant art, to provide a crusher with outlets (124 and 126) at varying vertical positions in the chamber (Fig. 5). It would have been obvious to provide the device of Smith with the outlets at varying vertical positions as taught by Willmot for separation of particles of different sizes.

18. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burkett in view of Willmot.

Burkett discloses most of the elements of this claim but for outlets at varying vertical positions of the chamber.

Willmot is cited to show desirability, in the relevant art, to provide a crusher with outlets (124 and 126) at varying vertical positions in the chamber (Fig. 5). It would have been obvious to provide the device of Burkett with the outlets at varying vertical positions as taught by Willmot for separation of particles of different sizes.

19. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sheahan in view of Willmot.

Sheahan discloses most of the elements of this claim but for outlets at varying vertical positions of the chamber.

Willmot is cited to show desirability, in the relevant art, to provide a crusher with outlets (124 and 126) at varying vertical positions in the chamber (Fig. 5). It would have been obvious to provide the device of Sheahan with the outlets at varying vertical positions as taught by Willmot for separation of particles of different sizes.

20. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hadsel in view of either Smith or Burkett and further in view of Willmot (7,207,504).

Modified device of Burkett has most of the elements of this claim but for outlets at varying vertical positions of the chamber.

Willmot is cited to show desirability, in the relevant art, to provide a crusher with outlets (124 and 126) at varying vertical positions in the chamber (Fig. 5). It would have

been obvious to further provide the device of Burkett with the outlets at varying vertical positions as taught by Willmot for separation of particles of different sizes.

21. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Scates (2003/0226922)

Smith discloses most of the elements of this claim but for wherein the at least one inlet comprises a closure and/or a variable aperture.

Scates teaches the concept of providing an inlet comprises a closure 10 to control the rate of the flow of the material to the crusher. It would have been obvious to provide the inlet of the device of Smith with the closure as taught by Scates in order to control the rate of the flow of the material.

22. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burkett in view of Scates.

Burkett discloses most of the elements of this claim but for wherein the at least one inlet comprises a closure and/or a variable aperture.

Scates teaches the concept of providing an inlet comprises a closure 10 to control the rate of the flow of the material to the crusher. It would have been obvious to further provide the inlet of the device of Burkett with the closure as taught by Scates in order to control the rate of the flow of the material.

23. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sheahan in view of Scates

Sheahan discloses most of the elements of this claim but for wherein the at least one inlet comprises a closure and/or a variable aperture.

Scates teaches the concept of providing an inlet comprises a closure 10 to control the rate of the flow of the material to the crusher. It would have been obvious to provide the inlet of the device of Sheahan with the closure as taught by Scates in order to control the rate of the flow of the material.

24. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hadsel in view of either Smith or Burkett and further in view of Scates.

Modified device of Hadsel has most of the elements of this claim but for inlets at varying vertical positions of the chamber.

Scates teaches the concept of providing an inlet comprises a closure 10 to control the rate of the flow of the material to the crusher. It would have been obvious to further provide the inlet of the modified device of Hadsel with the closure as taught by Scates in order to control the rate of the flow of the material.

25. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Jones, Jr. et al (5,366,170)

Smith discloses most of the elements of this claim but for wherein the at least one outlet comprises a closure and/or a variable aperture.

Jones, Jr. et al teaches the concept of providing an outlet comprises a closure (162 and 164) to control the rate of the flow of the material out of the crusher. It would have been obvious to provide the outlet of the device of Smith with the closure as taught by Jones, Jr. et al in order to control the rate of the flow of the material.

26. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burkett in view of Jones, Jr. et al.

Burkett discloses most of the elements of this claim but for wherein the at least one outlet comprises a closure and/or a variable aperture.

Jones, Jr. et al teaches the concept of providing an inlet comprises a closure (162 and 164) to control the rate of the flow of the material to the crusher. It would have been obvious to provide the outlet of the Burkett with the closure as taught by Jones, Jr. et al in order to control the rate of the flow of the material.

27. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sheahan in view of Jones, Jr. et al.

Sheahan discloses most of the elements of this claim but for wherein the at least one outlet comprises a closure and/or a variable aperture.

Jones, Jr. et al teaches the concept of providing an inlet comprises a closure (162 and 164) to control the rate of the flow of the material to the crusher. It would have been obvious to provide the outlet of the Sheahan with the closure as taught by Jones, Jr. et al in order to control the rate of the flow of the material.

28. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hadsel in view of either Smith or Burkett and further in view of Jones, Jr. et al.

Modified device of Hadsel has most of the elements of this claim but for wherein the at least one outlet comprises a closure and/or a variable aperture.

Jones, Jr. et al teaches the concept of providing an inlet comprises a closure (162 and 164) to control the rate of the flow of the material to the crusher. It would have been obvious to further provide the outlet of the Hadsel with the closure as taught by Jones, Jr. et al in order to control the rate of the flow of the material.

29. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Zichis.

Smith discloses most of the elements of this claim but for thermal insulation. Zichis teaches that providing a crusher with thermal insulation/jacket 103 is conventional. It would have been obvious to provide the device of Smith with the thermal insulation/jacket as taught by Zichis in order to control the temperature of the material.

30. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burkett in view of Zichis.

Sheahan discloses most of the elements of this claim but for thermal insulation. Zichis teaches that providing a crusher with thermal insulation/jacket 103 is conventional. It would have been obvious to provide the device of Burkett with the thermal insulation/jacket as taught by Zichis in order to control the temperature of the material.

31. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sheahan in view of Zichis.

Sheahan discloses most of the elements of this claim but for thermal insulation. Zichis teaches that providing a crusher with thermal insulation/jacket 103 is conventional. It would have been obvious to provide the device of Sheahan with the thermal insulation/jacket as taught by Zichis in order to control the temperature of the material.

32. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hadsel in view of either Smith or Burkett and further in view of Zichis.

Modified device of Hadsel has most of the elements of this claim but for thermal insulation.

Zichis teaches that providing a crusher with thermal insulation/jacket 103 is conventional. It would have been obvious to further provide the modified device of Hadsel with the thermal insulation/jacket as taught by Zichis in order to control the temperature of the material.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FAYE FRANCIS whose telephone number is (571)272-4423. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dana Ross can be reached on 571-272-4480. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Faye Francis/
Primary Examiner
Art Unit 3725

FF